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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,869	07/14/2003	Shigemasa Hirooka	115729	3829
25944	7590	03/09/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			TRAN, DIEM T	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/617,869	Applicant(s) HIROOKA ET AL.	
	Examiner Diem Tran	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-9 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 5-7, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagaishi et al. (US Patent 5,946,907).

Regarding claim 1, 6, 7, Nagaishi discloses an exhaust gas purification device of an engine, comprising:

a catalyst (4) disposed in an exhaust gas pipe of the engine for purification of an exhaust gas;

a secondary air injection device that injects a secondary air into the exhaust gas pipe upstream of the catalyst so as to accelerate a warm-up of the catalyst at a time of a startup of the engine (see col. 2, lines 28-46),

a controller that:

determining a degree of the warm-up of the catalyst; calculates a criterion output based on the determined degree of the warm-up of the catalyst (see col. 3, lines 1-7, col. 5, lines 22-36); detects an output of the engine, and stops injection of the secondary air with an injection stop device provided that the determined degree of the warm-up is greater than or equal to a predetermined criterion degree of the warm-up; and the

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detected output of the engine is greater than or equal to the calculated criterion output (see col. 5, lines 54-60, col. 6, lines 14-16).

Regarding claims 5, 9, Nagaishi further discloses cooling water temperature detector that detects a temperature of a cooling water of the engine; and wherein the controller corrects the criterion output and the criterion degree of the warm-up based on the temperature of the cooling water (see col. 3, lines 2-7, col. 5, lines 27-35).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 4, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagaishi et al. (US Patent 5,946,907).

Regarding claims 2, 8, Nagaishi discloses all the claimed limitations as discussed in claims 1, 7 above, Nagaishi further discloses degree of the warm-up of the catalyst by determining the catalyst temperature; however, fails to disclose determining the degree of the warm-up of the catalyst by determining an accumulated value of an amount of flow of a primary air taken into the engine after the start-up of the engine.

It is well known to those with ordinary skill in the art that a catalyst temperature can be determined based on the intake air amount. Thus, Nagaishi can also determine a degree of the warm up of the catalyst by determining an accumulated value of an

amount of flow of a primary air taken into the engine after the startup of the engine.

Therefore, such disclosure by Nagaishi is notoriously well known in the art so as to be proper for official notice.

Regarding claims 3, 4, Nagaishi discloses all the claimed limitations as discussed in claim 1 above, Nagaishi further discloses detecting the output of the engine based on the coolant temperature; however, fails to disclose that the controller detects the output of the engine based on a degree of opening of a throttle valve or an amount of intake air taken into the engine.

It is obvious to those having ordinary skill in the art that Nagaishi determine an engine output based on a degree of a throttle valve opening or an amount of intake air taken into the engine.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (703) 308-6073. The examiner can normally be reached on Monday -Friday from 8:00 a.m.-5:30p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (703) 308-2623. The fax number for this group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

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March 8, 2004



Diem Tran
Patent Examiner
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THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700